THAT WHICH IS CLAIMED:

1. An isolated nucleic acid molecule selected from the group consisting of:

a) a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1;

b) a nucleic acid molecule comprising a nucleotide sequence having at least 95% sequence identity to the nucleotide sequence of SEQ ID NO:1, wherein said nucleotide sequence encodes a polypeptide having pesticidal activity;

c) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2;

d) a nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide having at least 95% amino acid sequence identity to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide has pesticidal activity; and,

e) a complement of any of a)-d).

2. An isolated nucleic acid molecule of claim 1, wherein said nucleotide sequence is a synthetic sequence that has been designed for expression in a plant.

3. The nucleic acid molecule of claim 2, wherein said synthetic sequence has an increased GC content.

4. A vector comprising the nucleic acid molecule of claim 1.

5. The vector of claim 4, further comprising a nucleic acid molecule encoding a heterologous polypeptide.

6. A host cell that contains the vector of claim 4.

7. The host cell of claim 6 that is a bacterial host cell.

8. The host cell of claim 6 that is a plant cell.

9. A transgenic plant comprising the host cell of claim 8.

10. The transgenic plant of claim 9, wherein said plant is selected from the group consisting of maize, sorghum, wheat, sunflower, tomato, crucifers, peppers, potato, cotton, rice, soybean, sugarbeet, sugarcane, tobacco, barley, and oilseed rape.

11. Transgenic seed of a plant of claim 9.

12. An isolated polypeptide selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2;

b) a polypeptide encoded by the nucleotide sequence of SEQ ID NO:1, wherein said polypeptide has pesticidal activity;

c) a polypeptide comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide has pesticidal activity; and,

d) a polypeptide that is encoded by a nucleotide sequence that is at least 95% identical to the nucleotide sequence of SEQ ID NO:1.

13. The polypeptide of claim 12, further comprising a heterologous amino acid sequence.

14. An antibody that selectively binds to a polypeptide of claim 12.

15. A composition comprising the polypeptide of claim 12.

16. The composition of claim 15, wherein said composition is selected from the group consisting of a powder, dust, pellet, granule, spray, emulsion, colloid, and solution.

17. The composition of claim 15, wherein said composition is prepared by desiccation, lyophilization, homogenization, extraction, filtration, centrifugation, sedimentation, or concentration of a culture of *Bacillus thuringiensis* cells.

18. The composition of claim 15, comprising from about 1% to about 99% by weight of said polypeptide.

19. A method for producing a polypeptide with pesticidal activity, comprising culturing the host cell of claim 6 under conditions in which a nucleic acid molecule encoding the polypeptide is expressed, said polypeptide being selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2;

b) a polypeptide encoded by the nucleotide sequence of SEQ ID NO:1, wherein said polypeptide has pesticidal activity;

c) a polypeptide comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide has pesticidal activity; and,

d) a polypeptide that is encoded by a nucleotide sequence that is at least 95% identical to a nucleotide sequence of SEQ ID NO:1.

20. A method for controlling a lepidopteran or coleopteran pest population comprising contacting said population with a pesticidally-effective amount of a polypeptide of claim 12.

21. A method for killing a lepidopteran or coleopteran pest, comprising contacting said pest with, or feeding to said pest, a pesticidally-effective amount of a polypeptide of claim 12.

22. A plant having stably incorporated into its genome a DNA construct comprising a nucleotide sequence that encodes a protein having pesticidal activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence of SEQ ID NO:1;

b) a nucleotide sequence having at least 95% sequence identity to a nucleotide sequence of SEQ ID NO:1, wherein said nucleotide sequence encodes a polypeptide having pesticidal activity;

c) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:2; and,

d) a nucleotide sequence encoding a polypeptide having at least 95% amino acid sequence identity to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide has pesticidal activity;

wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell.

23. A plant cell having stably incorporated into its genome a DNA construct comprising a nucleotide sequence that encodes a protein having pesticidal activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence of SEQ ID NO:1;

b) a nucleotide sequence having at least 95% sequence identity to a nucleotide sequence of SEQ ID NO:1, wherein said nucleotide sequence encodes a polypeptide having pesticidal activity;

c) a nucleotide sequence encoding a polypeptide comprising an amino acid sequence of SEQ ID NO:2; and,

d) a nucleotide sequence encoding a polypeptide having at least 95% amino acid sequence identity to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide has pesticidal activity;

wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell.